

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE
DALLAS, TEXAS 75202-2733

SUBJECT: Plug and Abandonment Procedure for Ramona Unit, Well #417W
EPA file # OS2559, Osage Petroleum Reserve
Location: NW/4 Section 27-T24N-R12E (200 ft FNL, 165 ft FEL of quarter section)
Osage County, OK

Capacities: 4.5" O.D. 9.5 #/ft casing, .0912 ft³/ft, .0162 bbls/ft
Between 7" and 4 ½" casings, .1227 ft³/ft, .0219 bbls/ft

Region 6 Environmental Protection Agency Staff will conduct a site visit to the abandoned well on XXXXXX XX, 2004 at xx:xx a.m. Mr. Kent Sanborn of the Region 6 Staff will meet all contractors interested in viewing the site at the Osage Tribal Complex in Pawhuska, OK at the aforementioned time and date. Mr. Sanborn will address questions concerning the work to be done only during the site visit. Any questions or concerns prior to or after the visit should be addressed to Mr. Tyrone Hoskins. He can be reached at (214) 665-7375.

Following is the plugging procedure for the subject well:

1. At least five working days prior to the plugging operation, notify Mr. Kent Sanborn at EPA's Pawhuska field office (918-557-1615) and notify Mr. Richard Winlock of the BIA (918-287-1351), so that a representative may be present to witness the plugging and abandonment. The EPA or BIA witness may be required to modify the details of the plugging procedure based on the well bore conditions encountered during the plugging operation. This procedure is based on the condition of the well bore depicted by records on file. Cement used to plug the well should be Class "A" or Class "H" and have a yield of 1.18 ft³ per sack.
2. Displace the casing string with 9 #/gallon mud to stabilize the hole.
3. Drill out cast iron bridge plug set at 1400'.
4. A cement plug is required to be set from 1730' to 1530'. Wait on cement and tag top of cement plug. The cement plug can be tagged using tubing or wire-line.
5. Perforate the 4 ½ " and 7" casings at 370' and 255' with 4 spf, 90 degree phasing.
6. Run tubing and packer and set packer at 350'. Pump mud and establish circulation

between perforations at 370' and 255'. Squeeze cement to place plug between the 4 ½" and 7" casings strings (~12 sacks).

7. Unseat packer and pump sufficient cement volume to place a cement plug from 370' to 255' (if plugging contractor wishes to pull the packer and re-enter with tubing only to set this plug they may) . Wait on cement and tag top of cement plug. The cement plug can be tagged using tubing or wire-line.
8. Pull tubing to 60', pump 9 ppg mud down tubing and establish circulation. Pump sufficient cement volume to place a cement plug from 60' to within 3' of surface.
9. The casing is to be cut 3 feet below ground level and the well bore capped with a 1/4" thick metal plate. The plate shall contain the following inscription information: legal description, lease name and well number, Osage inventory number, and date. The plate shall be welded in place.

Plate inscription:

SW/4 Section 27-T24N-R12E

Well 417W

Inventory Number: OS2559

Date Well Plugged:

Note: The date inscribed on plate shall be the date the well was plugged and abandoned and shall be reported on Osage Form 139.

10. Working pit: If a working pit is required, a steel tank shall be used. This tank will be used as a working pit to catch any fluids circulated to the surface. The plugger is responsible for maintaining fluid level in the tank such that overflow does not occur. The tank is required to be emptied and the waste disposed of into an authorized facility.
11. Surface restoration: The surface of the lands disturbed in connection with the conduct of operations shall be restored. Soils removed in order to cut the surface casing 3 feet below ground level will be replaced and compacted. Re-contouring a small area around the well bore may be necessary after the well is plugged.
12. The Contractor is responsible for the disposal of any casing and any other equipment salvaged in the plugging of this well. This material is to be removed from the site and/or lease prior to payment of the contract.
13. Within 30 days of completion of operations the contractor shall complete and submit an original and 4 copies of the plugging report (Osage Form 139) to the EPA

Pawhuska office:

EPA Pawhuska Section
Osage Nations Federal Programs
627 Grandview Avenue
Pawhuska, OK 74056

One copy to the BIA office:

Bureau of Indian Affairs
Minerals Branch
P.O. Box 1539
Pawhuska, OK 74056

One copy to the Osage Agency:

Osage UIC Office
Osage Agency Campus
P.O. Box 1495
Pawhuska, OK 74056

Form 139 should summarize operations performed and include all pertinent dates and results of operations including depths and volume of cement plugs, casing cut-off point and any other pertinent information relating to the well plugging procedure.